

### **ABSTRACT OF THE DISCLOSURE**

A cleaning method of an apparatus for manufacturing a semiconductor device includes providing a first cleaning gas and a second cleaning gas into a chamber, and forming a mixture of the first cleaning gas and the second cleaning gas, wherein the first cleaning gas includes a fluorocarbon gas and an oxygen gas and the second cleaning gas includes nitrogen, activating the mixture of the first cleaning gas and the second cleaning gas by a high frequency power, and exhausting residues cleaned by the activated mixture and remaining gases.